

**RESTORATION INFORMATION MANAGEMENT SYSTEM
FORMERLY USED DEFENSE SITES (FUDS)**

PROJECT FACT SHEET

5 OCTOBER 1994

TAG REVIEW DATES: 01 MARCH 95

11 APRIL 96

1. **SITE NAME:** Scioto Ordnance Plant

SITE NUMBER: G050H098000

LOCATION:

City: Marion

County: Marion

State: Ohio

PROJECT NUMBER: G050H098006

CATEGORY: OE

INPR RAC: 2

ASR RAC: 2

2. **POC'S:**

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3. **SITE DESCRIPTION:** Scioto Ordnance Plant, located about 1 mile northwest of Marion, Ohio, was constructed on 12,452 acres of what was slightly rolling farmland. The former plant is bordered on the west by the Pennsylvania Railroad, on the east by the State Route 98, on the south by Fairgrounds Road and the Erie Railroad, and on the north by Marseilles-Galion Road. The former Scioto Ordnance plant acreage was divided approximately as follows: The State of Ohio purchased 1244 acres for a

correctional facility, with 53 acres later added, and DeKalb Agricultural Corp. purchased 1,980 acres for farming. 644 acres were sold to an individual for construction of a housing development. 6,571 acres were sold off in small parcels to private individuals, and 1285 acres were turned over to the Atomic Energy Commission who subsequently sold the acreage to private concerns.

4. SITE HISTORY: The Scioto Ordnance plant consisted of the administrative area, a housing area, a shop area, a gas station, a magazine area with 177 magazines, an igloo area with five earth-covered igloos, and the production area with nine production lines. In 1942, the US Rubber started production of fuzes and boosters. In 1943 the Atlas Powder Corporation started production of 20 mm and .50 caliber incendiary bullets. In Nov. of 1943, two lines were converted to bomb filling operations. In 1944 the Permanente Division of the Henry Kaiser Corporation started production of incendiary bombs. Production continued until Aug. 1945.

The items produced at the Scioto Ordnance Plant consisted of the following: fuzes (i.e., type/model AN-M100, AN-M101, AN-M103, 20mm-No.253, and M51A1); primer (for artillery and M51 fuze); boosters (for fuze M21A1 and M48); small-arms ammunition (20 mm and .50 caliber incendiary) and incendiary bombs (i.e., M76 and M74-cluster bombs).

Following WWII the government started excessing the property to the Federal Farm Mortgage Corporation (FFMC), the War Assets Administration (WAA), the War Department (WD), state and local agencies, and private individuals.

Part of the former Scioto Ordnance plant site is the focus of an HTRW project, number G050H098003, due to the possibility of radiological contamination at the Warner Warehousing when it was under control of Atomic Energy Commission.

5. PROJECT DESCRIPTION: The former Scioto Ordnance plant has been divided into the following contaminated areas:

Area B- Artillery Booster Load Line B-1. This line was used to produce artillery boosters then converted to the production of incendiary bombs. Area B is currently surrounded by a cornfield. The access road to the former line is off Pole Line Road north of Linn Hipsher Road. The area was not inspected due to lack of permission to be on the property. However, the site survey team did identify former buildings in a state of disrepair. The former owner, Mr. Smith indicated that he had never found any type of ordnance. This area is considered to be potentially contaminated based upon site use. Potential contamination that

could be found would be black powder and tetryl residues. Potential contamination could be expected in or around the screen and blend house, the pelleting building, the booster test house, and the assembly building.

Area D- Boa Fuze Load Line Fl. Area D is located east of Pole Line Road between Linn Hipsher Road and Likens Road, and north of Area F. The main assembly line building is badly run down with the roof collapsed in several places. The only buildings left standing are the boiler house/change house, the main assembly line, and the remains of the pelleting building. This area is considered to be potentially contaminated based upon site use. Potential contamination that could be found would be black powder and tetryl residues. Potential contamination could be expected in or around the screen and blend house, the pelleting building, the screen and dry house, the fuze test house, and the assembly building.

Area E- Powder Train Fuze Load Line F-2. Area E is located east of Pole Line Road between Linn Hipsher Road and Likens Road, and north of Area F. This area is considered to be potentially contaminated based upon site use. Potential contamination that could be found would be black powder, tetryl, and lead azide residue. Potential contamination could be expected in or around the pelleting building, the powder conditioning building, the time rings loading building, the assembly building, the detonator and primer building, and the fuze test house.

Area F- Artillery Fuze Load Line F-4. Area F was the largest of any of the lines. Line F-4 was used for the production of artillery fuzes, .50 cal. incendiary ammunition, 20 mm incendiary ammunition, and incendiary bombs (filled with magnesium and gasoline mixtures). This area is considered to be potentially contaminated based upon site use. Potential contamination that could be found would be black powder, tetryl, smokeless powder, incendiary mixtures and magnesium residue. Potential contamination could be expected in or around screen and blend building, pelleting building, the assembly building, and the fuze test house.

Area G- Artillery Fuze Load Line F-5. Area G is not accessible by road. Line F-5 was used for the production of artillery fuzes, .50 cal. and 20mm incendiary ammunition. This site contained three rifle ranges that consisted of long lengths of pipe into which rounds were fired. Nothing remains of these ranges. Area-G is considered to be potentially contaminated based upon site use. Potential contamination that could be found would be black powder, tetryl, smokeless powder, and incendiary mixture residue. Potential contamination could be expected in or around screen and blend building, the pelleting building, the fuze assembly

building, the mix distribution building, and the primer test house.

Area H- Artillery Fuze Primer Load Line F-6. Area H is not accessible by road. Area H is considered to be potentially contaminated based upon site use. Potential contamination that could be found would be black powder, mercury fulminate, and primer mixture residues. Potential contamination could be expected in or around the frost proof house, the mercury dry house, the primer test house, the preparation building, the primer loading building, and the dry house.

Area I- Minor Caliber Fuze Load Line F-7. Area I is accessible by road. Area H is considered to be potentially contaminated based upon site use. Potential contamination that could be found would be black powder and tetryl residues. Potential contamination could be expected in or around the screen and blend building, the pelleting building, the fuze test house, and the assembly building.

Area J- Major Caliber Fuze Load Line F-8. Area J is visible by road. Area J is considered to be potentially contaminated based upon site use. Potential contamination that could be found would be black powder and tetryl residues. Potential contamination could be expected in or around the screen and blend building, the pelleting building, the fuze test house, and the fuze assembly buildings.

Area K- Quarry/Dump. Area K is located on the property of the Marion Correctional Facility. The quarry/dump is located just north of Williamsport Road and just east of State Road 4. The quarry is surrounded by trash and debris and is full of water. Area K is considered to be potentially contaminated. Reports indicate that empty "goop" (magnesium jelly) barrels were dumped into the quarry along with other waste material. Potential contamination could be expected to be found in the water or on the quarry bottom.

Area M- Burning Field. Area M is currently a corn field and is located just north of Linn Hipsher Road and west of Lucas Road. Area M is considered to be potentially contaminated. Potential contamination could include black powder, tetryl, smokeless powder, mercury fulminate, lead azide, and magnesium jelly residues.

PROJECT SITE SPECIFIC DESCRIPTION:

AREA B°

SIZE: 21 ACRES

USE: Artillery Booster Load Line B-1. This line was used to produce artillery boosters then converted to the production of incendiary bombs.

SUSPECTED OE CONTAMINATION: black powder and tetryl residues

AREA D°

SIZE: 16 ACRES

USE: Bomb Fuze Load Line Fl.

SUSPECTED OE CONTAMINATION: black powder and tetryl residues

AREA E°

SIZE: 32 ACRES

USE: Powder Train Fuze Load Line F-2

SUSPECTED OE CONTAMINATION: black powder, tetryl, and lead azide residues

AREA F.

SIZE: 24 ACRES

USE: Artillery Fuze Load Line F-4. Area F was the largest of any of the lines. Line F-4 was used for the production of artillery fuzes, .50 cal. incendiary ammunition, 20 mm incendiary ammunition, and incendiary bombs (filled with magnesium and gasoline mixtures). SUSPECTED OE CONTAMINATION: black powder, tetryl, smokeless powder, incendiary mixtures and magnesium residue.

AREA G.

SIZE: 21 ACRES

USE: Artillery Fuze Load Line F-S. Line F-5 was used for the production of artillery fuzes, .50 cal. and 20mm incendiary ammunition. This site also contained three rifle ranges.

SUSPECTED OE CONTAMINATION: black powder, tetryl, smokeless powder, and incendiary mixture residue.

AREA H.

SIZE: 22 ACRES

USE: Artillery Fuze Primer Load Line F-6.

SUSPECTED OE CONTAMINATION: black powder, mercury fulminate, and primer mixture residues.

AREA I.

SIZE: 19 ACRES

USE: Minor Caliber Fuze Load Line F-7

SUSPECTED OE CONTAMINATION: black powder and tetryl residues

AREA J.

SIZE: 19 ACRES

USE: Major Caliber Fuze Load Line F-8

SUSPECTED OE CONTAMINATION: black powder and tetryl residues

AREA K.

SIZE: 46 ACRES

USE: Quarry/Dump

SUSPECTED OE CONTAMINATION: Reports indicate that empty "goop" (magnesium jelly) barrels were dumped into the quarry along with other waste material.

AREA M.

SIZE: 5 ACRES

USE: Burning Field

SUSPECTED OE CONTAMINATION: black powder, tetryl, smokeless powder, mercury fulminate, lead azide, and magnesium jelly residues.

ASR RECOMMENDATIONS:

ASR recommends that an Engineering Evaluation/Cost Analysis (EE/CA) be conducted on the Areas B,D,E,F,G,H,I,J,K, and M. The ASR contains the following specific recommendations: that buildings involved in explosive production and the ground/soil around those buildings be tested for the presence of explosive contamination. The quarry should be tested for the presence of explosive contamination of the soil and water. The explosive field should be tested for the presence of explosive contamination of the soil. If any explosive contamination is found, either an HTRW project or OE project is recommended based upon the results. There is the potential for several CON/HTRW projects on the grounds of the former Scioto Ordnance Plant. Interviews with local land owners indicate the possible presence of several underground storage tanks.

6. CURRENT STATUS: The ASR was prepared in Oct. 1994 based upon a site visit.

7. STRATEGY: EE/CA for areas identified in the project description.

8. ISSUES AND CONCERNS:

This project could be accomplished in two phases. These phases may be conducted concurrently.

PHASE I

Phase one should be the identification and review of old aerial photographs of the installation to determine if any

demolition grounds or ground scaring is noted. Typically, for any munitions production processes there are a certain percent of out of specification material that is produced that is destined for destruction. This could occur in a demolition pit and typically would occur on the installation.

I would recommend that the aerial photographs, if available be reviewed and a site visit be conducted by CEHNC to the questionable areas found in the photographs. In lieu of photographs, the team could conduct a site visit to the burning fields, quarry, and the other sites identified for an EE/CA. This site visit could also be used to locate any local aerial photographs of the former installation to view stressed vegetation and pits/depressions. An EE/CA statement of work then could be written for the specific areas needing ordnance investigations.

Also, testing of munitions occur to verify the production quality. This can be seen by the use of the rifle ranges. However, there were no descriptions in the report of the testing of 20 mm or bombs. The site named the burning fields is a highly suspected site for the testing of the incendiary bombs. This area should be screened by qualified ordnance personnel. After screening the suspected sites by qualified personnel, the determination of whether an ordnance project is warranted could be more appropriately determined.

PHASE 2

Phase two should be the HTRW environmental investigation effort conducted by the district. This effort could consist of sampling/analysis of suspected areas. The investigation should identify sumps, pits, and septic tanks that were in use during the production era. The district could also conduct a removal action for the underground storage tanks left on site. The quarry's water should be sampled/analyzed and, if clean, pumped to determine if drums of waste are present or if the quarry was utilized as a disposal location for ordnance items.

PHASE II: Phase two should be the HTRW environmental investigation effort conducted by the district. The district could also conduct a removal action for the underground storage tanks left on site. The district should be coordinated with closely on the overall strategy for the former installation. It appears that environmental investigation appears warranted for all the areas stated in this fact sheet. Support by qualified EOD personnel should be available to the district during their field efforts.

REMAINING ISSUES AND CONCERNS IDENTIFIED TO PM PRIOR TO PROJECT

START

Determination of findings from the HTRW project, number G050H098003 should be considered prior to the initiation of any sites that may have impact from this project.

9. SCHEDULE SUMMARY: EE/CA

10. FUNDING/BUDGET SUMMARY: For Official Use Only